[302] One of th[e] se Submarine springs,
228 located a few miles north of Jubail, has been marked by a spar
312 buoy by order of King Ibn Saud.

228 O'Shea states that while the divers on the Trucial Coast are
165 rarely attacked by sharks, about 30 were attacked and two killed around 1940.[27] Whitelock states that the Arabs claimed that the danger of sharks was ever present, but that their worst fear was from the saw fish, which had been known to cut divers completely in two.[28]

228 Rihani writes that what the Persian Gulf pearl diver dreads
925 most is the *dawl*. However, he apparently does not realize what
136 the *dawl* is, merely quoting Sheikh Khalifah ibn Muhammad al-Nabhani's *History of Bahrein:* "The *dawl* is a semi-fluid animal, about the size of a man's hand, round in shape, with a multitude of tendons about two feet in length, resembling a network of silk. It has no power of locomotion, but is driven by the waves and currents hither and thither. If it comes in contact with the body of man, it burns it, leaving a deep scar; and if it is lifted out of the water and left in the sun for five minutes, it dissolves." [29]

The zoologist will immediately recognize this description of the *dawl* as a jellyfish. It is in fact a small bell-shaped jellyfish with two to three foot-long tentacles. The *dawl* swims at any level and is practically invisible underwater; thus the divers cannot keep away from the stinging tentacles, which will burn the body and can put out an eye. Along the Ras Tanura peninsula, the *dawl* is most often seen near the surface shortly before flood tides.

136 There is a species of needle urchin (*Diadema*) in the Persian Gulf with spines from one or two feet long.[30] It is known that these spines will produce nasty slow-healing wounds if bumped into under water. This urchin may be the cause of some of the open sores on the divers' legs, although salt water alone could cause them, for the Persian Gulf has the highest salt content of all the ocean bodies, and constant immersion in salt water is known to produce a rash. However, as the *Diadema* is black and several

[27] *Ibid.*, p. 138.
[28] H. H. Whitelock, *op. cit.*, p. 43.
[29] A. Rihani, *op. cit.*, p. 280.
[30] *Diadema* was first reported from the Persian Gulf by this author: A. H. Clark and R. LeB. Bowen, Jr., "Echinoderms of Saudi Arabia," *American Museums Novitates*, No. 1390 (1949).

2: Villiers T-5 (1938-39) 1948 MK2 Maritime Arabs MK2
Kuwait MK1

Negro origin, the descendants of slaves, though not now slaves themselves. Many others are of Iranian origin. Almost none are Bedouin, for the Arab Bedouin is not a seafaring man. In Kuwait, the callings open to the low-class Iranian are restricted to portering, pearling (either as diver or as tender), and sailing. Both Iranians and Negroes work splendidly, are loyal, competent, and well disciplined.

As the *nakhoda* class is tied to the merchant by a structure of debt, so also are the sailors tied to the *nakhoda* class in the same way. All deep-sea sailing is paid for on a shares system, and there are no wages. Often the *nakhoda* of the deep-sea dhow has an interest in a pearling vessel (though not now to anything like the same extent as in former years), and the sailor may be bound to him through pearling debts, either his own or inherited. The more iniquitous practices in the pearling business structure have long been on the way out, largely because of the excellent example set at Bahrein, but the debt tradition stands and is almost impossible to eradicate.

The sailors go to sea because they know no other life, and they make a wretched living by incredibly difficult methods. They have no possessions other than the clothes they stand in, and one or two spare gowns, a good headcloth, and a few sarongs. Their toothbrush is the twig of a tree; their ablutions are made five times daily at a mosque well, or in the sea; they know no shelter and rarely have a bed. The younger seamen, I have noticed, often have no home other than the *suq*, or native bazaar, where they coil down in their rough cloaks for a night's sleep on a bench in a cheap coffee shop, or in the sand. At sea, they stretch out on the deck, beneath the stars, for there is no such thing as accommodation for the seamen or anyone else in most dhows. The officers and the more important merchants live on a bench round the wheel, in the stern of the ship; the seamen lie down anywhere.

What keeps the seaman a disciplined and more or less contented worker is his hope of reward, principally from smuggling or his own ventures, and his ambition to get hold of a tiny shop in the *suq* of his home town. This is an ambition he rarely achieves. His more usual fate is to die young, especially if he be also a pearl diver.

3: Bowen · C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

Each diver has two lines, one attached to a stone or iron diving weight; so that they will not become fouled, they are passed over sweeps left projecting over the gunwales athwartship and lashed down to the tholepins. The diver puts his feet into a loop over the diving weight (or simply lets the rope pass between his toes), releases the rope by untying a slipknot, and, holding the rope tightly, plummets to the bottom. As soon as he releases the line with the weight attached, the attendant hauls it to the surface. In the meantime the diver frantically plucks all the oysters he can before exhausting his air. He usually crawls on one hand and one foot, propelling himself with his free foot and collecting the oysters with his free hand. He puts the oysters into an open-weave palm-leaf basket fastened to his waist or around his neck, or hitched to a rope (which he holds or which is tied to his body). When he is ready to come to the surface, he jerks this rope.

The maximum depth at which the divers work is about 12 fathoms (72 feet). The average length of time they remain under water has been greatly exaggerated: some stories say 5 to 10 minutes. Villiers,[4] who spent two months on a buyer's *jalbut* with the Kuweit fleet, states that the divers stayed under water from 40 to 90 seconds, averaging about a minute. O'Shea[5] spent some time with the divers of the Trucial Coast, and he also states that the time averaged about a minute, ranging from 40 to 75 seconds. Hugh Smith[6] observes that the Arabs are the best divers employed in the Ceylon fisheries, staying down from 60 to 90 seconds; he cites an authentic case of an Arab who stayed down 109 seconds in 7 fathoms of water.

Ordinarily the diver remains under water for about a minute and rests for two or three minutes; on a good day he may make 30 or 40 dives, totaling half to three-quarters of an hour, and by the end of the season he may have completed more than 3000 dives in 30 to 50 feet of water.

The diver's worst enemy is fatigue. He has little fear of sharks and, indeed, is seldom bothered by them, though O'Shea[7] speaks of an attack on 30 divers, two of whom were killed under water. Whitelock[8] states that the greatest fear of divers on the Trucial Coast is the sawfish, which has been known to cut divers in two. The creature most feared by the divers in the Persian Gulf, at least on the north banks between Kuweit and Bahrein, is a jellyfish known to the Arabs as the *dawl*, which has two- to three-foot

[4] Alan Villiers: Sons of Sinbad, New York, 1940, p. 392.

[5] Raymond O'Shea: The Sand Kings of Oman, London, 1947, p. 137.

[6] H. M. Smith: The Pearl Fisheries of Ceylon, *Natl. Geogr. Mag.*, Vol. 23, 1912, pp. 173-194; reference on p. 182.

[7] *Op. cit.*, p. 138.

[8] H. H. Whitelock: An Account of the Arabs of the Pirate Coast, *Trans. Bombay Geogr. Soc.*, Vol. 1, 1844, pp. 32-49; reference on p. 43.